

Amendment to the Claims:

The claims under examination in this application, including their current status and changes made in this paper, are respectfully presented.

1 (currently amended). A method of coating an oxidized surface comprising:

reacting an active species having a general formula of AX_n with the oxidized surface to produce a bond between A and the oxidized surface and to form ~~an exposed surface a~~ compound having a reactive group; and

forming a coating by reacting a nucleophilic molecule, having a ~~general formula of DR^2~~ an organic substituent not reactive with active group X, with the reactive group to form a bond between the nucleophilic molecule and A;

wherein A may be any metal, semimetal, transition metal or ceramic;

and wherein X may be any active group;

~~wherein R^2 includes an organic substituent not reactive with active group X;~~

~~and wherein R^2 forms a coating.~~

2 (original). The method of claim 1 wherein the coating is hydrophobic.

3 (original). The method of claim 2 wherein the hydrophobic coating inhibits reactions of the underlying surface with water.

Claim 4 is canceled.

5 (currently amended). The method of claim 1, wherein the reacting of the nucleophilic molecule with the reactive group displaces the reactive group from the compound, so that the coating comprises a monolayer.

6 (original). The method of claim 1, wherein the oxidized surface is selected from the group consisting of: metals, semimetals, transition metals, ceramics, alloys thereof, and any combination thereof.

Claim 7 is canceled.

8 (original). The method of claim 1, further comprising X selected from the group consisting of: esters, amides, organic acids, phenolates, thiolates, phosphonates, and any combinations thereof.

9 (currently amended). The method of claim 1, further comprising DR^2 selected from the group consisting of: alcohols, amines, ~~organic acids, such as~~ carboxylic acid, phenols, thiols, phosphonic acids, and any combinations thereof.

10 (currently amended). The method of claim 1, further comprising:
then exposing the coating to a first temperature;
wherein the step of forming the coating is performed by reacting the nucleophilic molecule with the reactive group at a second temperature above an environmental the first temperature to which the coating is expected to be exposed in later processing.

11 (original). The method of claim 1, wherein A comprises Si.

12 (previously presented). The method of claim 11, wherein the active species comprises $Si(OCH_2CH_3)_4$ and the nucleophilic molecule comprises an alcohol.

13 (currently amended). A method of coating an oxidized surface comprising:
reacting an active species having a general formula of $AR^1_mX_n$ with the oxidized surface to produce a covalent bond between A and the oxidized surface and to form ~~an exposed surface~~ a compound having a reactive group; and

reacting a nucleophilic molecule, having ~~a general formula of DR^2~~ an organic substituent not reactive with active group X, with the reactive group to form a covalent bond between the nucleophilic molecule and A, to form a coating ;

wherein A may be any metal, semimetal, transition metal or metalloid;

wherein X may be any active group;

wherein R^1 includes an organic substituent non-reactive with the active group X;

~~and wherein R^2 includes an organic substituent non-reactive with the active group X.~~

14 (original). The method of claim 13 wherein the coating is hydrophobic.

15 (original). The method of claim 14 wherein the hydrophobic coating inhibits reactions of the underlying surface with water.

Claim 16 is canceled.

17 (currently amended). The method of claim 13, wherein the reacting of the nucleophilic molecule with the reactive group displaces the reactive group from the compound so that the coating comprises a monolayer.

18 (original). The method of claim 13, wherein the oxidized surface is selected from the group consisting of: metals, semimetals, transition metals, ceramics, alloys thereof, and any combination thereof.

Claim 19 is canceled.

20 (original). The method of claim 13, further comprising X selected from the group consisting of: esters, amides, organic acids, phenolates, thiolates, phosphonates, and any combinations thereof.

21 (currently amended). The method of claim 13, further comprising DR² selected from the group consisting of: alcohols, amines, ~~organic acids, such as~~ carboxylic acid, phenols, thiols, phosphonic acids, and any combinations thereof.

22 (previously presented). The method of claim 13, further comprising reacting the nucleophilic molecule with the reactive group at a temperature above an environmental temperature to which the coating is expected to be exposed in later processing.

23 (original). The method of claim 13, wherein A comprises Si.

24 (previously presented). The method of claim 23, wherein the active species comprises Si(OCH₂CH₃)₄ and the nucleophilic molecule comprises an alcohol.

25 (currently amended). A method of coating an oxidized surface comprising:

reacting an active species having a general formula of SiX_n with the oxidized surface to produce a bond between Si and the oxidized surface and to form ~~an exposed surface a~~ compound having a reactive group; and

forming a coating by reacting a nucleophilic molecule, having ~~a general formula~~ of DR^2 an organic substituent not reactive with active group X, with the reactive group to form a bond between the nucleophilic molecule and Si;

wherein X may be any active group;

~~wherein R^2 includes an organic substituent not reactive with active group X;~~

~~and wherein DR^2 forms a coating.~~

26 (previously presented). The method of claim 25, wherein the active species comprises $\text{Si}(\text{OCH}_2\text{CH}_3)_4$ and the nucleophilic molecule comprises an alcohol.